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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,750	05/12/2005	Masakazu Fujiki	00862.023324	1633

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EXAMINER	
PARK, JEONG S	
ART UNIT	**PAPER NUMBER**
2154	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/534,750	FUJIKI ET AL.	
	Examiner	Art Unit	
	Jeong S. Park	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18,31,35 and 36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18,31,35 and 36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *5/12/2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/12/2005, 10/24/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The specification is objected to because:

The title of the invention is not descriptive.

A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

2. Claims 1-18, 31 and 35-36 are objected to because of the following informalities:

In claim 1, line 3, the word "the processes" should be corrected as –the plurality of processes-- for clear understanding of the claim. Similar correction should be made for claims 14, 18 and 31;

In claim 1, line 4, the phrase "the respective processes" should be corrected as –the respective plurality of processes-- for clear understanding of the claim;

In claim 1, line 12, the phrase "manipulation request" should be corrected as –the manipulation request-- for clear understanding of the claim. Similar correction should be made for claim 18, line 12;

In claim 6, line 4, the word "a update" should be corrected as –an update--. Similar correction should be made for claims 9, 10 and 17;

In claim 9, line 2, the phrase "the plurality of clients" should be corrected as –the plurality of processes or a plurality of clients-- for clear understanding of the claim;

In claim 12, line 12, the phrase "corresponding response information" should be corrected as –the corresponding response information-- for clear understanding of the

claim; and

In claim 35, line 4, the phrase "an information processing method" should be corrected as –the information processing method-- for clear understanding of the claim. Similar correction should be made for claim 36.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 35 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 35 is drawn towards a control program for making a computer execute an information processing method. The control program is a computer program itself. The computer program is not in one of the statutory categories.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 14, 15, 18, 31, 35 and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Negishi et al. (hereinafter Negishi)(U.S. Patent No. 6,571,278 B1).

Regarding claims 1, 18, 35 and 36, Negishi teaches as follows:

An information processing method or apparatus for maintaining, in a system in which each of a plurality of processes (computer A and computer B, 1 and 3 in figure 1 respectively) connected via an information transmission medium (communication medium, 19 in figure 1) holds and uses shared data (replica contents) to be shared by the processes, consistency of shared data (replica contents) held by the respective processes (computer for maintaining consistency of replica contents by interchanging data modification with another computer, see, e.g., col. 2, lines 25-27), comprising:

An output step of outputting, when a manipulation request for the shared data is generated (application, 5 in figure 1, issues a request to the replica controller, 7 in figure 1, for the data modification, see, e.g., col. 4, lines 40-44), request information that represents the manipulation request onto the information transmission medium (packet transmitter, 13 in figure 1, generates a necessary packet and transmits it to a communication medium, 19 in figure 1, see, e.g., col. 6, lines 4-6 and step 1200 in figure 2);

A reception step of receiving the request information output in the output step (reception queue, 11B in figure 1, controlled by packet receiver 15, receives BT and SBT from packet 1 received from computer B, see, e.g., col. 7, lines 21-41) and response information (response BT and SBT) corresponding to request information output (BT and SBT in packet 1) by other processes (computer B) from the information transmission medium (see, e.g., col. 7, lines 26-30 and figure 2); and

A manipulation execution step of executing a manipulation for the shared data in

accordance with manipulation request (modification request stored in a reception queue) indicated by the response information received in the reception step (replica controller, 7 in figure 1, executes a modification request related to a packet 1 stored in a reception queue 11A in figure 2 and stores the replica in the data storage device, 17 in figure 1, see, e.g., col. 7, lines 16-30).

Regarding claims 14 and 31, Negishi teaches as follows:

An information processing method or apparatus for maintaining, in a system in which each of a plurality of processes connected via an information transmission medium holds and uses shared data to be shared by the processes, consistency of shared data held by the respective processes (computer for maintaining consistency of replica contents by interchanging data modification with another computer, see, e.g., col. 2, lines 25-27) comprising:

An establishment step of establishing connection to a plurality of client processes (computer A and computer B have been connected through communication medium, 19 in figure 1, which means the establishing connection is inherently included, see, e.g., col. 7, lines 11-15 and figure 1);

A reception step of receiving an event associated with a change in shared data from each of the plurality of client processes (reception queue, 11B in figure 1, controlled by packet receiver 15, receives BT and SBT from packet 1 received from computer B, see, e.g., col. 7, lines 21-41); and

An issuance step of issuing the event received in the reception step (reception queue in computer A) to the plurality of client processes (computer B)(sending response

BT and SBT in packet 2 to computer B accordance with the received packet 1 from computer B, see, e.g., col. 7, lines 26-40).

Regarding claim 15, Negishi teaches as follows:

The event received in the reception step contains update mode information (value of BT and SBT in the modification request) indicating a change sequence of the shared data (timing of update execution is with the received modification request, see, e.g., col. 2, lines 34-36), and the issuance step includes a step of controlling distribution destinations of the event on the basis of the update mode information (transmission queue, 9 in figure 1, manages a packet transmission request and the packet transmission request includes the type and the contents of the data modification prepared by the application, wherein the controlling distribution destination of a packet to send is inherently included in the packet transmission request, see, e.g., col. 5, lines 31-47).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 2-13 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Negishi et al. (hereinafter Negishi)(U.S Patent No. 6,571,278 B1) as applied to claim 1 above, and further in view of Birkler et al. (hereinafter Birkler)(U.S. Publication No. 2002/0129103 A1).

Regarding claim 2, Negishi teaches as follows:

The manipulation execution step includes a step of executing the manipulation request generated in the self process (replica controller, 7 in figure 1, executes a modification request generated from application, 5 in figure 1, and stores the replica in the data storage device, 17 in figure 1, see, e.g., col. 4, lines 40-44 and col. 7, lines 16-30);

When the modification request is executed, the replica controller (7 in figure 1) sends BT and SBT value included in packet 1 to the other process (computer A) for response back for the packet executed the modification request in computer B (see, e.g., col. 7, lines 20-41); and

Using response information for a transmission confirmation of the sent packet in order to discard the sent packet from the transmission queue (see, e.g., col. 7, lines 43-52).

Negishi does not teach the executing of the manipulation after receiving the corresponding response information.

Birkler teaches as follows:

A request/response protocol implementation between a client and a server for updating presence information (see, e.g., page 2, paragraph [0020], lines 1-4 and figure 4).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Negishi to include request/response protocol implementation as taught by Birkler in order to provide two ways communications by acknowledge or

response message from the receiver process before modifying or updating the shared data to apply to the sending process.

Regarding claims 3 and 17, Negishi teaches as follows:

Negishi teaches all the limitations of claim as explained above except for using timeout method (predetermined period of time elapses).

Birkler teaches as follows:

Implementing timeout method in order to response back to the requested party (once expiration of the timeout period is detected, an update response is sent back to the client from the server, see, e.g., page 2, paragraph [0023], lines 13-17 and figure 10).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Negishi to include timeout method as taught by Birkler in order to properly provide two ways communications in case of loss of response message due to the transmission error by implementing the well-known timeout concept in the art.

Regarding claims 4 and 16, Negishi teaches as follows:

A queue control step of registering a queue item (response BT and SBT) in a manipulation queue (reception queue, 11A in figure 2) in response to generation of the manipulation request (see, e.g., col. 7, lines 26-30 and step 1000 in figure 2), and setting a corresponding queue item to be an already processed item when the manipulation request is executed (the updated response BT and SBT indicates as an already processed); and

The value of response confirmation BT and SBT are compared with the value of

BT and SBT respectively included with the modification request in the transmission queue in order to decide a packet discard as a transmitted packet (see, e.g., col. 7, lines 43-52 and figure 2).

Negishi does not teach that executing the manipulation request after the response information is not set to be an already processed item.

Birkler teaches as follows:

A request/response protocol implementation between a client and a server for updating presence information (see, e.g., page 2, paragraph [0020], lines 1-4 and figure 4).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Negishi to include request/response protocol implementation as taught by Birkler in order to provide two ways communications by acknowledge or response message from the receiver process before modifying or updating the shared data to apply to the sending process.

Regarding claim 5, Negishi and Birkler teach all the limitations of claim as explained above regarding claims 3 and 4.

Regarding claim 6, Negishi teaches as follows:

The shared data consists of a plurality of items, each of which contains designation information used to designate an update mode to be adopted (the order of the replica in the replica updating is designated, see, e.g., col. 4, lines 40-50).

Regarding claim 7, Negishi teaches as follows:

A switching step of switching the update mode for each of the plurality of items

(each modification request can be assigned to different update modes therefore the switching step of switching the update mode for each request is inherently included, see, e.g., col. 7, lines 53-62).

Regarding claim 8, Negishi teaches as follows:

The switching step includes a step of providing a user interface that allows a user to select an object display corresponding to a desired item and to designate a desired update mode (the user interface is inherently included in any computer system since the application in computer A, 5 in figure 1, generates the modification request with the selection of update mode, see, e.g., col. 4, lines 26-39 and figure 1).

Regarding claims 9 and 10, Negishi teaches as follows:

An update mode switching result in the switching step is reflected on the shared data (data storage device) of the plurality of clients or a client of interest (multiple computers)(the data storage device, 17 in figure 1, stores a replica generated by replica controller, 7 in figure 1, based on the modification request including update mode and functions as an ordinary database, see, e.g., col. 5, lines 25-29).

Regarding claim 11, Negishi and Birkler teach all the limitations of claim as explained above regarding claim 5.

Since Birkler teaches the implementation of timeout method, the step of setting the predetermined period of time is inherently included.

Regarding claim 12, Negishi and Birkler teach teaches all the limitations of claim as explained in regarding claims 1 and 3.

Regarding claim 13, Negishi teaches as follows:

The switching step includes a step of setting the update mode in accordance with manipulation contents (modification request) for an object corresponding to an item (each modification request can be assigned to different update modes therefore the switching step of switching the update mode for each request is inherently included, see, e.g., col. 7, lines 53-62).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeong S. Park whose telephone number is 571-270-1597. The examiner can normally be reached on Monday through Thursday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JP

July 18, 2007

NATHAN FLYNN
SUPERVISORY PATENT EXAMINER